



# ZOOLOG

PUBLISHED QUARTERLY BY THE ZOOLOGICAL SOCIETY OF MANITOBA



VOLUME 8, NO. 1

MARCH, 1967  
Single copy 25¢  
Free to members of the Zoological Society of Manitoba

**The editor of  
Zoolog will gladly  
accept applications  
for membership  
to the Zoological  
Society of Manitoba.**

**Regular Membership  
\$5.00**

**Contributing Membership  
\$25.00**

**Write to the address below  
or phone 738-4767 Petersfield  
or 247-3853 Winnipeg.**

## **Acknowledgements**

All contributions are credited.

**Photographs:** Llamas — Hugh Allen  
Alpaca — Gerry Cairns

**Oil Painting:** Pasque flower — Betty Pash

### **ZOOLOG**

**Zoolog is published quarterly by the  
Zoological Society of Manitoba.**

**Editor — Dieter H. Schwanke**

**Address Letters to the Editor to Clandeboye, Man.**

**Authorized as second class mail by the Post Office Department, Ottawa,  
and for payment of postage in cash.**

*The two pictures on this insert have been made available to us through the courtesy of the New York Zoological Society.*

*The signs depicted tell the story of the wolf and are on display in the Zoological Park, Bronx, New York.*



# Message from the President

— George Heffelfinger

While I am not intimately familiar with the literature, I am under the impression that the publication of books on the natural and human history of Manitoba are few and far between. My library contains a copy of David Hink's book on The Fishes of Manitoba, which is still available in paperback from the Manitoba Government, and I have seen a beautiful two-volume set of the Mammals of Manitoba written a good many years ago by Ernest Thompson Seton.

I know that there are a number of others but generally speaking the literature is either out-dated or spread around in a number of small articles in various periodical publications.

This fact was brought to mind when a friend passed to me a copy of the Resource Reader from the Saskatchewan Department of Natural Resources. This is a 3-ring binder to which sheets will be added from time to time and covers the whole field of conservation, wildlife, forestry and human history of that province.

Our Manitoba community is growing, not only in terms of numbers of people, but also from the standpoint that people now have more leisure time and a higher level of education. Perhaps we should give some serious thought as a community to the matter of publication. I think that we are ready for it.

In our rejuvenation of the Zoolog, we have hoped to draw articles on all aspects of the natural history of Manitoba. We will soon have a fine new museum which will concern itself with these matters and human history as well. The Historical Society has always been a viable organization and anxious to publish their findings.

Let's give some thought as to how we can draw all these forces together in some good publication for our province. I am sure that we will find a ready market for our product.

---

*We must develop new instruments of foresight and protection and nurture in order to recover the relationship between man and nature and to make sure that the national estate we pass on to our multiplying descendants is green and flourishing.*

—John F. Kennedy

# Shrews in Manitoba

**Text and Photograph**

**C. H. Buckner and D. G. H. Ray**

There are in Manitoba six species of shrews, ranging in size from the tiny pigmy shrew which has a body length of less than two inches and is about the weight of a dime, to the relatively gigantic short-tailed shrew which is about the size and weight of a full-grown field vole. All live mainly in the forested regions of our province and are rarely found far from water. Their diet consists almost entirely of insects, of which they consume almost unbelievable numbers — often over three times their own weight each day! The larger shrews are also capable of attacking, killing, and eating a full grown mouse. So ferocious are they that they will attack animals many times larger than themselves. Were shrews the size of dogs, they would likely be the most terrible predator in the world. Although large numbers of these interesting animals go about their business of keeping in check countless forest insect pests each year they are rarely seen by the layman. Lightning fast on the forest floor, even when seen they are unlikely to be recognized.

Although shrews appear rugged in nature, they are most difficult to keep in captivity. Their highly nervous disposition and tremendous food demands account for most failures in maintaining shrews in captivity. Even if patience and luck take us by the first few crucial days of captivity we often find to our dismay that our shrew has died from another paradoxical reason: the nature of shrew behaviour insists that it feed at almost hourly intervals, but because their natural diet is calorie-packed, they often die from accumulation of fat. The balance between the two levels of feeding is indeed a precarious one. Shrews in nature rarely live to see their first birthday — shrews in captivity often succumb in less than a week!



Recent efforts in the laboratories of the Department of Forestry and Rural Development in keeping shrews in captivity have been met with increasing success. The animal shown in the photograph died recently after attaining the age of almost three years! By a gradual and laborious process, this specimen was taught to accept a commercial pelletized artificial food that is used by the farmer to feed freshly weaned stock. The food has the advantage that it does not spoil as meats would, and that it provides sufficient bulk that the animal does not become overweight. Once converted to the artificial food the shrew lost the nervous disposition that is so common in newly caught animals.

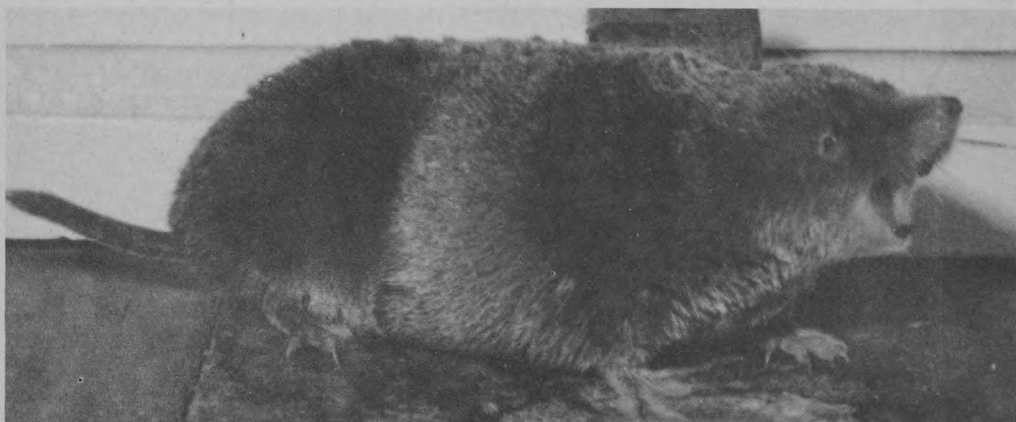
Study of this shrew has revealed three pieces of information that are evidently new to science. Firstly the age of the specimen is something of a record. Never before, to our knowledge, has such a length of time in captivity been reported. Secondly,

some shrew specialists maintain that shrews cannot live longer in nature than a single year because they are unable to successfully perform the moult from summer to winter coat during their second winter. Our shrew produced not one but three very fine winter coats. The sleek, glossy coat in the photograph is evidence of the second winter coat, and proof that at least for the short-tailed shrew this hypothesis is not true. And finally, shrews are thought to be almost exclusively insectivorous. Certainly our shrew did not **have** to feed on insects — for 18 months it survived exclusively on the artificial diet, indeed thrived upon it!

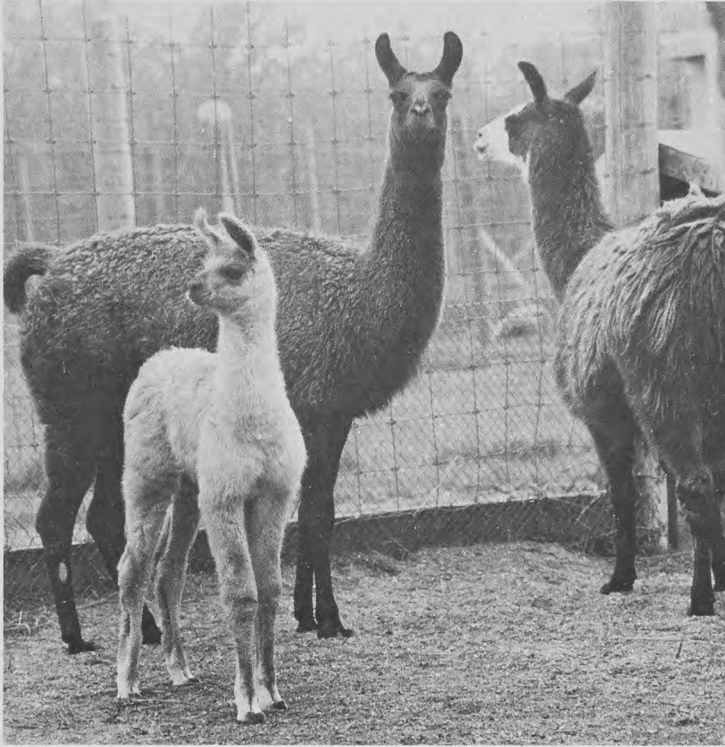
The conversion of this shrew to an artificial diet, with no apparent loss in longevity may be of direct interest to Zoo Directors. Several problems remain, but the door is now apparently open to displaying this interesting and little known predator.

### **The Short-Tailed Shrew**

*Blarina Brevicauda*



# Our Zoo Animal Collection (2)



**Llama Group**  
Lama glama

As I pointed out in the first article of this series, the Alberta Game Farm is enlarging its animal collection along similar lines as has been planned for our Assiniboine Park Zoo, only more rapidly. If any proof was still needed, it has just been received in the form of a message from Hamburg, where the international stud - book of European Bison (Wisent) is maintained. According to this note from the stud - book centre, Al F. Oeming, President of the Alberta Game Farm, is negotiating the import of a Wisent pair from Helsinki Zoo, Finland. This is wonderful news, because now there is hope that Canadian Zoological Parks can exchange Wisent stock with one another, avoiding too much inbreeding. Our own animal acquisition budget prohibits the importation of animals as large as Wisent from places as distant as Finland. We are therefore grateful to Mr. Oeming for his endeavour and wish him success.

As I have touched on financial aspects, it may be well to consider the material side of the acquisition and breeding of Zoo animals. In line with the theme of this series, I am choosing a species of mammals which was not represented in our collection, when I took over in 1959: the Llama.

The first two Llamas to be shown here were a one year old female and a young male, obtained in exchange for other animals from the Zoo of Minot, North Dakota. They arrived on June 28th, 1960. We entered a trade value of \$900.00 for the two. A fine white female was acquired for only \$200.00 from the provincial Zoo at Orsainville near Quebec, on September 15th, 1960, and another pair arrived on October 18th, 1960. These latter ones came from the San Diego Zoo, valued \$800.00. So our initial outlay, largely in animal trades and not in cash, was \$1900.00 for two male and three female Llamas.



Again Llamas were acquired in 1961 and in 1963, altogether one male and four females for a total of \$1975.00 in cash and trades. Summing up, we spent \$3875.00 on the acquisition of three male and seven female Llamas by way of barter trade or purchase.

It so happens that right now, on February 1st, 1967, we have three male and six female Llamas in our collection, very nearly the same number and ratio as obtained between 1960 and 1963. But in the meantime we have traded off or sold eighteen Llamas from Winnipeg at a total of \$3945.00. This is a remarkable achievement. Just stop to consider that an average herd size of ten Llamas has been on exhibit at our Zoo from 1963 on, when we completed our acquisition program. Consider, too, that we started out with young specimens. No Llama was born in Winnipeg until June 14, 1962 and June 15, 1962, when our first two Llama babies, "Prima" and "Clown", made their appearances. Yet no less than sixteen Llamas have been sold or traded with other institutions!

The best year with regard to Llama breeding success has been the year 1964, when seven Llamas were born at our Zoo, of which only one failed to thrive. The photograph presents an unnamed Llama boy, grandson of "Minota," in the foreground (born 3rd November, 1964, sold to Ontario 20th April, 1965), female Llama "Mocca" behind him and grandmother "Minota", founder of our Llama stock, to the right.

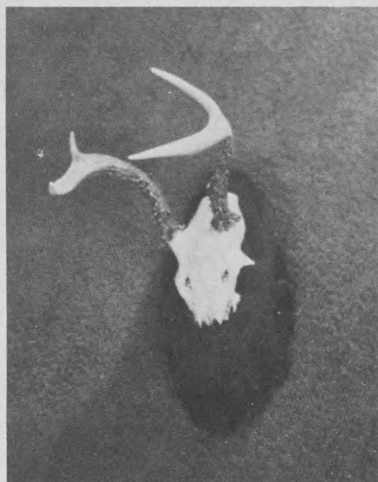
The other photo shows the first Alpaca to arrive at our Zoo, a fine male specimen, received on December 9th, 1964.

As can easily be seen from these two pictures, there are striking differences between Llama and Alpaca. More will be written on these animals, their biology and their history at our Zoo, at a later date.

**Gunter Voss, Dr. rer. nat.**  
**Zoo Director**



**Alpaca**  
Lama Pacos



Imagine being caught in a hail storm; never-ending. Substitute people for hailstones and you get the terrifying picture of our globe being bombarded with people, 1000 more humans will have to be fed, clothed, and housed when you are finished reading this article. This figure represents net increase, births minus deaths. To give yourself the shivers project this figure over a day and you will discover that every day, another Winnipeg proper is added to the world, or 288,000 people.

In view of this alarming fall-out, is it any wonder that we may ask: Who cares that Passenger Pigeons have disappeared? What's the difference if the Whooping Crane becomes extinct?

Do you miss the Dodo?

How about our native Deer, Beaver, Ducks?

As the human world population explodes, nature becomes buried under expanding cities, industries, farmland, and concrete of runways and highways. Nature, animals are retreating; wetlands are drained, brush burnt, food and nesting destroyed.

On top of this we hunt; legally and otherwise.

Most of the depreciative efforts against conservationists, who didn't want any animal or plant disturbed, originated with their stand on hunting, which was against and had all the hunters up in arms.

The advanced protector of wildlife considers undisturbed nature a precious and beautiful heritage of great moral and psychological value to us. He gives hunting some importance for the same reasons. In addition to that, modern agriculture has discovered that many areas of the world are entirely useless as farm, or even rangeland. Where even an unpretentious goat couldn't eke out a decent existence, scientists discovered that nevertheless some forms of wildlife thrive often in goodly numbers. Wouldn't it be only proper to use the land as a wildlife area? In addition to a certain food supply, perhaps deer meat, the area could also attract tourists, for many countries a major source of income.

The Province of British Columbia has just recently elevated the persecuted and maligned wolf and cougar to big game animals, requiring a licence for hunting and subject to seasons, and other rules of more or less fair play. As most politicians are mere humans, we may assume that money from the sale of licences was not overlooked in this decision.

Hunting within our present moral concepts may have an economical basis and have some value as mental and physical recreation.

Naturally hunters would like to get a good trophy for their efforts and, if at all possible, will shoot an animal that may qualify for a Boone and Crockett Club entry. But what will happen to the quality of the species if we only harvest the best, and replace nothing?

At the present time the hunter's aim of getting a prize animal may be offset by Manitoba's severe winters, in which most of the weaker animals are killed, thus assuring a stock of prime survivors. However, as people increase, and therefore more and more hunters take to the field, more and more

prize animals will be taken, a reverse from natural selection. Even our winners might then not be able to even the score by eliminating weaklings. Not noticing, we are imposing an evolution in reverse order on our game animals.

Perhaps we ought to ponder a few restrictions — although that's a dirty word with hunters who scream loudly the moment a buck only season is announced — and allow only the shooting of bucks with slightly deformed antlers for a year. To smooth any ruffled feathers, we may again allow good bucks to be shot the following year.

Of course, what with hunters who sometimes mistake their wives for squirrels and shoot them, and who still consider it a God-given right to shoot anything, anytime, anywhere, the technical and practical problems of such a conservation measure stagger the imagination. On the other hand, such selective hunting may well be welcome by hunters who feel that it will increase the challenge of the hunt.

However. Hunters worthy of the name hardly pose a problem and are usually the first to recommend or help in sound conservation practices.

Where we attempt sportsmanship, fairplay and ethical conduct in hunting game animals, we are sadly lacking in the understanding of predators. This is hardly surprising as we perpetuate the tale of the big bad wolf who sits in his den all day wondering whose livestock he's going to devour next.

"It's only a wolf," we shrug our shoulders when we are told of people who are chasing predators to exhaustion by plane or snowmobile and, if they are very kind, shoot the animal in the end. This is then called predator control and perhaps even agricultural progress. It's all legal, mind you. Authorized by local council, who sometimes hasn't the faintest idea if there are predators in the area; and nobody questions if they need controlling.

However, let's not cry wolf too loudly. There are cases where a fox finds chickens infinitely more tasty than mice and I don't blame him. One surely must give the chicken owner the right to defend himself against such a sneak. And a phone call to the nearest conservation officer will usually clear up the problem.

The hunting of predators can be one of the most challenging undertakings, especially since they are hunters themselves and much more cunning than a young whitetail buck. To maintain our self-respect, we must hunt within the framework of what we consider to be moral. As one frustrated conservation officer said, "It seems that the combination of speed and shooting just drives them over the brink; they go crazy." He was talking about mobile shooters.

Education of ourselves and our friends is the paramount answer. And we have no time to lose. Already our precious heritage is diminishing fast. Against such foes as the airplane and the snowmobile, even the immensely resourceful wolf is no match.

## ***and then there were none***

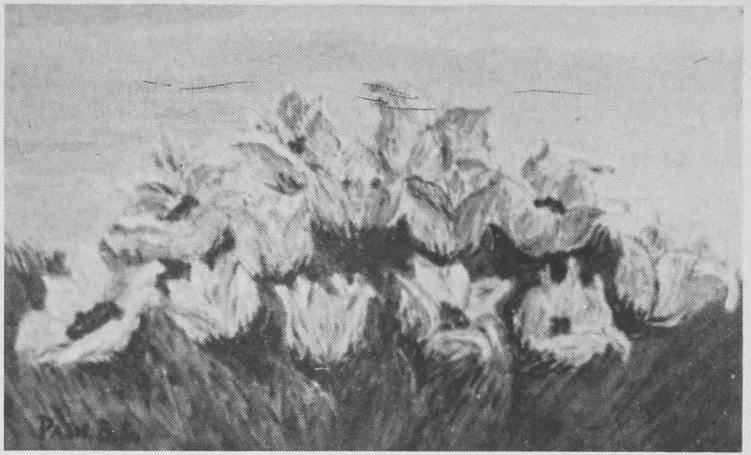
**Cold evening air draws over the hollow.**

**Branches weaving in the breeze interrupt the hush.**

**Silence again.**

**And then in solo, multiplying fast, the plaintive song of the northland.**

**Wolves still howl nightly in Manitoba's forests primeval.**



The Provincial flower of Manitoba, the Prairie Crocus, is not a true Crocus at all. The pale mauve, cup-shaped wild flower with a yellow centre that cheers the hearts of Manitobans in the spring is the Pasqueflower (*Anemone platensis*, variety *Wolfgangiana*). It is most commonly seen on short grass prairie and unploughed pasture land in southwest Manitoba, around the Melita area. Near Winnipeg, we may find spring's harbinger in the short pastures in and around Rosser, just north-west of the city. Characteristic of the Pasqueflower are the fuzzy leaves which have many leaflets spread out like fingers. It blooms in late April.

Artists often depict a pale purple true Crocus as the floral emblem of Manitoba, perhaps because it has more aesthetic appeal than the stemmed Pasqueflower. Both display Manitoba hardiness by blooming early, sometimes brightening a snowy landscape.

Another species, the Wood Anemone (*A. quinquefolia*), is also a spring wild flower with white pink or purple blossoms. It grows from the Rocky Mountains to the Lakehead.

The true Crocus is a garden flower on this continent, although it is found wild in Europe and Asia. About seventy species are cultivated in colours of yellow, white, orange and purple. The Crocus is a member of the Iris family (*Iridaceae*) and grows not from a bulb, but a corm. Through the papery outer layers of the corm push the grass-like leaves. The blossom, which develops from a bud in the centre of the leaves, is a long-tubed, cup-shaped flower made up of six nearly equal segments. Young corms are formed on top of old ones, so Crocuses must be replanted every two or three years.

The word "crocus" is Latin for saffron. The Cloth of Gold Crocus (species *susianus*) was once used extensively as a source of saffron which was used as a yellow dye, and as a spice for food.

## Prairie Blue



When word was received, on November 8th, 1966, of a consignment of fourteen Orang-Utans to be shipped from Singapore to Canada, Dr. Voss alerted the Acting Veterinary Director General in Ottawa immediately, without whose permit no live animal can be brought into Canada. It is to be hoped that this action has prevented the shipment.

Little is known of the habits of Orang-Utans in their native haunts, the jungle treetops of Sumatra and Borneo. It is an accepted fact, however, that this Great Ape is threatened by extinction unless something effective is done quickly. The case of the Orang-Utan is one of the few instances where the demands of Zoos have contributed noticeably to the depletion of the wild population. Realizing this grave involvement, various associations of Zoo Directors have passed resolutions pledging to abstain from the acquisition of Orang-Utans unlawfully removed from their country of origin, Indonesia. The American Association of Zoological Parks and Aquariums, the Japanese and the German Zoo Directors' organizations and the International Union of Directors of Zoological Gardens have all passed resolutions urging their members strongly not to buy smuggled Orang-Utans. But there is still a market of customers in research centres, circuses and unorganized roadside menageries. As long as they are going to buy, someone is trying to make a profit on smuggled, ill-documented, innocent baby Orang-Utans.

Although there are no Orang Utans in our Zoo (and will not likely be there for many years to come), we thought that this story will be met with interest by our conservation-conscious readers.

## Illegal Imports threaten the Orang-Utan



Binturongs (*Arctitis binturong*) were born in Winnipeg! According to the International Zoo Yearbook, this is a very rare event. The Zoos of Dresden, East Germany and Sydney, Australia were so fortunate as to record births of Binturongs in 1962; no Zoo reported success with Binturongs in 1963; three

Zoological Gardens, however, Dresden (again), Krefeld, West Germany and Vienna, Austria list the blessed event for 1964. In years past, London, England and San Diego and New York also bred the Binturong. Now our Assiniboine Park Zoo has done it, and we are very thrilled.



# My native land on high

—translation from the Spanish of  
Francisco De Aldana,  
*The Native Land*,  
by Henry Wadsworth Longfellow

Text and Photographs

G. W. Malaher

To most of us, Manitoba is that small portion of the province which encompasses the prairie and the fringe of settlement reached by our road system. Few Manitobans — or indeed few Canadians, realize that our province extends northward to the tundra; or if they do they rarely think about it. Still fewer have had the opportunity of seeing this fascinating area.

You've been to Churchill you say? Well, perhaps, but what lies beyond? What lies north and west along the 60th parallel? **Back** from the coast of Hudson Bay — back where the rivers become little streams, where the land is full of lakes, where Eskers, those long sandy ridges left behind by subglacial rivers, snake across the country.

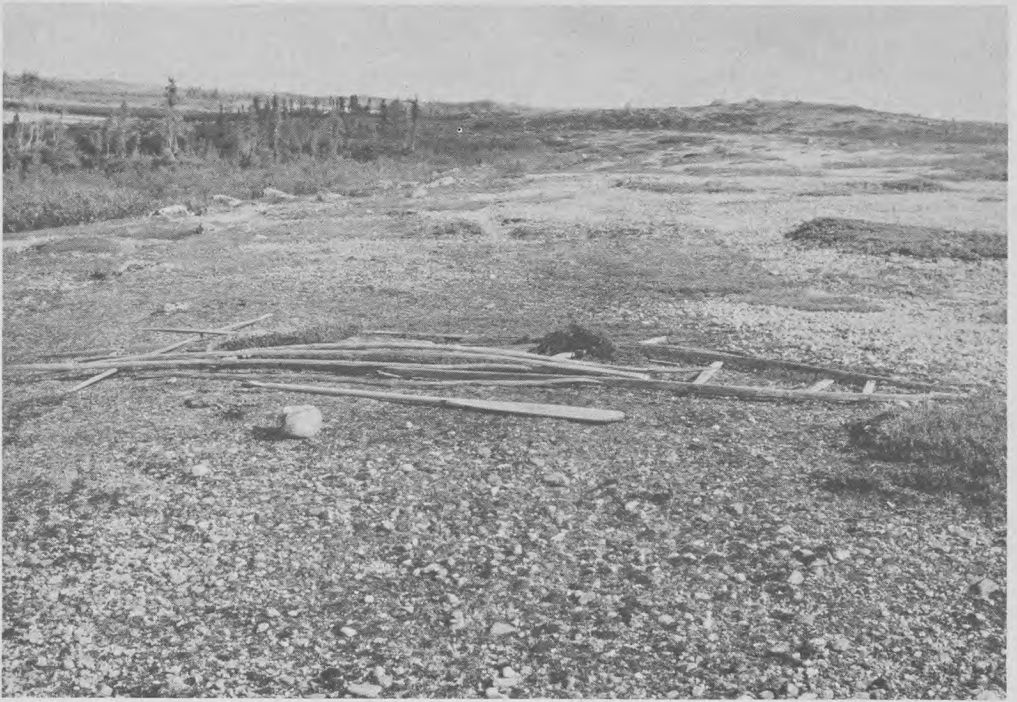
Do people live here? Did people ever live here? Yes, they did but today the Chipewyan Indians of the Nejanilini Lake country have been moved out to Churchill. The Eskimos from further north have been moved to the coast also. The land is quiet — so quiet that every sound has a meaning — the native people are gone. This was and

to some extent still is, the land of the Barren Ground Caribou. The native economy was a caribou economy. When the caribou became scarce, to move was a necessity.

It is also a land of transition. Transition from timber, through "the land of little sticks" on to the treeless tundra. Here long fingers of stunted spruce reach out under the shelter of the hills, struggling to survive; but where the hills themselves are bare of all but low shrubs or creeping plants.

A land also of transition from the Indian culture to that of the Eskimo — from the birch bark canoe of the south to the hunting kayak of the north. This is the land where these cultures met often in conflict. In part a no man's land where one or other culture might hold sway and then retreat, perhaps to recover from some tribal battle.

History, handed down by word of mouth, has it that one such battle occurred on an island in Nejanilini Lake.



Signs of stone age man are surprisingly easy to find if you know where to look and what to look for: arrow heads, spear points, stone skinning knives and many other artifacts. Either man inhabited this area for a very long time or was at one time present in very considerable numbers.

Whether these relics are of early Indian or of early Eskimo culture — or perhaps of both, the archaeologist has not yet determined. That both were there in relatively recent times became evident from findings during this past summer and this leads me to the main part of my story.

Last August we went North once again to tag Barren Ground Caribou at Nejanilini Lake but they were hard to find. Two of the crew scouted thirty miles to the north of our main camp in an attempt to find caribou along the Wolverine River where it enters the north end of Nejanilini. They camped for the night where an Esker dipped into the water, a favorite crossing place for caribou. Next morning they followed the Esker northward along the east bank of the river.

Not far from camp, half hidden in a bed of crowberry along the open slope of the Esker and some thirty yards from the river, they stumbled on a rare find. It was the skeletal remains of an Eskimo kayak. Further search revealed first a double bladed paddle hewn from the stem of a stunted spruce, then a beautiful specimen of a caribou spear. Both had been carefully cached in a tight clump of midget spruce down near the river's edge. As both were off the ground the wood was still sound and in good shape. The kayak, its caribou skin covering and the thongs binding the framework together long rotted away, had collapsed on the tundra. Where it touched the ground, the wood had rotted. Gradually the slow-growing tendrils of the crowberry had crept over part of the framework and here too the wood was rotten. But the shape remained and much of the wood was sound.

News of the find was brought back to the main camp by Ed. Engen and Horace McCallum and they proudly displayed the paddle and spear. The kayak had been left undisturbed.

As far as we knew or yet know this was as far south as a kayak had ever been found in the interior and the record was important. We made a special trip by boat, back to the site, photographed the kayak from every angle, numbered the pieces and then carefully took the spruce framework apart. We found that just two nails had been used in its construction but these were not modern wire nails, but they were square forged nails, made and used long ago. The spear head too was made of metal, part of an old file heated and beautifully shaped by hammering. The kayak, spear and paddle were all brought back to the Manitoba Museum, the gift of those that found them.

These finds would have been exciting enough but another find was shortly to be made. Only some seventy miles south along the Wolverine River, Fisheries Biologists were at work and Dick Sutton of the Manitoba Museum had accompanied them in search of artifacts. Going to and fro from camp, Dick had twice stepped over what he unconsciously thought to be a moss covered decaying birch log. The third time he halted. What was a big birch log doing where no birch could grow?



**J. D. Robertson with the remains of the Kayak.**

He bent down and carefully pulled away the moss. There before him were the remains of a large Chipewyan Indian birch bark canoe. Crushed to the ground by the weight of many winter snows, much of it had rotted away but pieces of it were still quite sound. Enough of one gunwale and birch bark remained in one piece to see how the bark had been doubled and rolled over the wood frame to provide strength. Here was where two pieces of bark had been stitched together with spruce roots — still intact. This record too, now reposes in the Manitoba Museum with sufficient data that a similar craft could be constructed in true native fashion.

The age of these finds is of course not definitely known, but piecing evidence together it seems likely that both canoe and kayak had lain there waiting to be found for 60-75 years. The kayak may have been made near where it was found. It was used for hunting rather than long distance travel. The canoe or at least the materials to make it had come from far to the south where birch grow large enough for canoe-making.

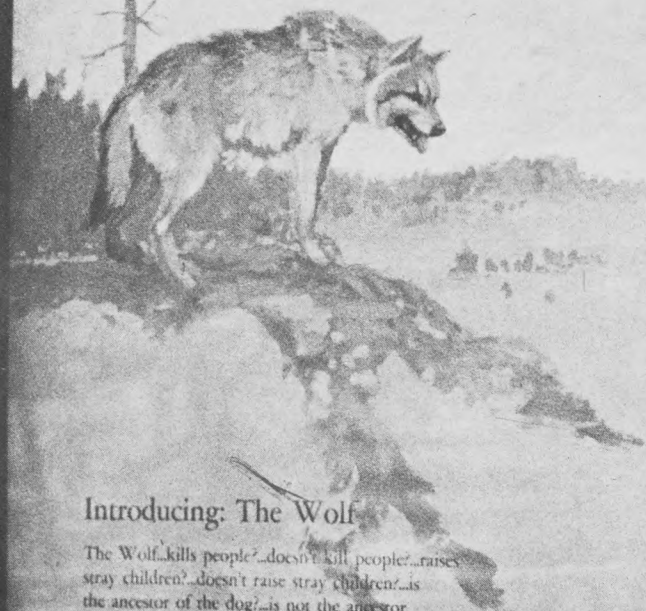
That these finds should be made within weeks of each other is itself interesting, but that evidence of the canoe culture and the kayak culture should at the same time be found within so few miles of each other, each at the extreme limit of its ordinary use is quite remarkable.

How did they get there? From whence did they come and who used them? Why were they abandoned, particularly the canoe? One can understand the Eskimo abandoning his kayak to walk home across the tundra, but he evidently intended to return, else why so carefully cache the paddle and the spear?

And why O why abandon such a valuable tool as a metal spear point, perhaps his only means of obtaining meat? Did he intend to return that day or the next, and if so why didn't he? Perhaps there is some human tragedy here but if so, the tundra will not now give up its secret.



# WOLF WOOD



## Introducing: The Wolf

The Wolf...kills people?...doesn't kill people?...raises stray children?...doesn't raise stray children?...is the ancestor of the dog?...is not the ancestor of the dog?...is found only in North America?...is found throughout the Northern Hemisphere?...has no family life?...has a devoted family life?...has a special territory?...is free ranging?...is a menace to livestock?...is not a menace to livestock...and so on.

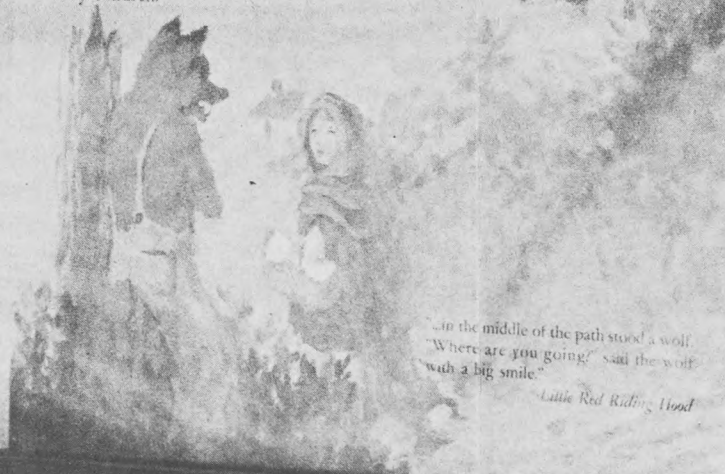
Probably no other animal is so controversial in his relationship with man. He is hated, respected, feared, ruthlessly hunted, trapped and poisoned. Even the word "wolf" has a universal connotation of evil. Why? What makes this magnificent animal so fascinating to man? Perhaps the answer is that no other animal in history has competed so directly with man.

## The Wolf in Literature and Legend

From earliest times, the wolf has occupied man's mind and stimulated his imagination. The result is a heritage of strange, often beautiful, legends and stories. Everyone is familiar with Little Red Riding Hood and with White Fang. Who has not shivered at literary images of wolf eyes reflecting from a lonely campfire, wolves chasing a sleigh on the barren Russian steppes or the awful deeds of those changeling humans, werewolves?

On the other hand, think of the warm glow created by stories of wolves raising children—Romulus and Remus, the baby Mowgli of "The Jungle Book."

The facts are less dramatic. Wolves have very rarely attacked man and never reared stray children.



...all sides, eyes glowing like live coals came into sight, the number, instead of diminishing, kept on growing, till it was no longer a pack following the sledge but an immense herd.

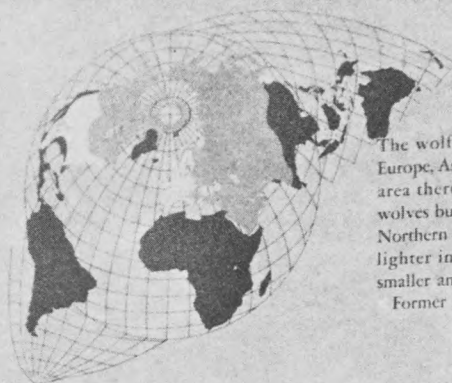
*Wolf Hunt in Carist Russia*  
by Alexandre Dumas, 1859

"...As day faded they became more bold, coming nearer, until I found it would be impossible to keep them at bay during the night without a fire."

*Across the Plains in 1850*  
by John Steele

"...in the middle of the path stood a wolf. 'Where are you going?' said the wolf with a big smile."

*Little Red Riding Hood*



The wolf ranges virtually throughout Europe, Asia and North America. In any area there can be white, black or gray wolves but gray is the prevailing color. Northern wolves tend to be larger and lighter in color; southern wolves are smaller and more strongly colored.

Former Range ■ Present Range

## Wolf and Dog... Cousins

The Wolf is a member of the dog family. Domesticated dogs, coyotes, dingos and jackals are close relatives; distantly related are foxes, maned "wolves" and dholes.

Wolf and domesticated dog are surely related, but how importantly the wolf figures in the dog's family tree is open to debate.



## Social Customs and Communications



These are two familiar facial expressions.

A. Timidity B. Aggression



B.



Territory Marking



Establishing Intentions

Wolf language consists of many facial expressions, tail positions, body stances, sounds and scents. Much of this can be observed in your own dog, especially when it greets other dogs. Some of these customs are subtle and not easily noticed by us, but they are unmistakable to wolves and dogs.



## The Wolf Pack

The wolf depends on his pack for survival. The pack acts as a unit in capturing food and defending the den and hunting territory. Traditional hunting routes are generally irregular circles of 20 to 60 miles in diameter, the size depending upon the abundance of prey animals. The wolf route or runway is marked by urine and fecal scent posts.

The foundation of the pack is a breeding pair of wolves and their one and two-year old offspring. (The leader is the wolf male.)



Man is unique in his ability to make the instruments of destruction—guns, traps, poisons and bulldozers. With these tools, he has thoughtlessly destroyed the wild lands and wild creatures about him.

In the United States today, man's encroachment on and development of wild lands has replaced the hunter's trap and gun in the extermination of wild creatures, such as the Bald Eagle, the Whooping Crane, the Grizzly Bear, the Puma, the Wolf and others.



A Wolf Trap

## The Wolf's Role ...and Man's Responsibility

The wolf acts as an important selective force in nature, eliminating the diseased, the infirm and the inferior among its prey animals which compete with healthy reproducing animals for space and food. However, the predator does not usually reduce the numbers of its prey quantity of available food and cover are the determining factors. This puts the responsibility directly where it belongs, upon man. We *will* pay for poisonous, wasteful predator control programs involving bounties, poisoning and trapping. Only your responsible interest in sound conservation practices will save America's wildlife heritage. With conservation it may still be possible to be chilled by the mournful howl of a lonely wolf 50 years from today.

Join the New York Zoological Society  
Education, Conservation, Research



# 75 years of covering tomorrows!

The record of seventy-five years of service speaks for itself. It is a story of financial protection for hundreds of thousands of people. It is a story of \$1,728,013,000 distributed to policyholders and beneficiaries in direct benefits. It is a story of people serving people. The high-collared clerk on the tall stool, his quill pen busily making entries in a great ledger is the counterpart of today's sophisticated computer programmer in his world of microseconds and random access. The agent following the dusty country road of the '90's in his horse and rig and the present day chartered life underwriter striding through the lobby of a modern office building are of the same lineage, each bent on the same mission of covering tomorrows.

Your future is our business...today



THE  
**Great-West Life**  
ASSURANCE COMPANY



Dr. H. E. Welch,  
110 Thatcher Drive,  
WINNIPEG 19, Man.

## **ASSINIBOINE PARK ZOO**

OPERATED BY

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG  
PARKS AND PROTECTION DIVISION

ANDREW CURRIE, DIVISION DIRECTOR

DR. GUNTER VOSS, ZOO DIRECTOR

### **Honour Roll**

THESE MAJOR CONTRIBUTIONS OF THE LAST FIVE YEARS  
ARE GRATEFULLY ACKNOWLEDGED

#### **Manitoba Wildlife Branch**

Animal Donations, Native Animals,  
1963, 1964, 1965, 1966.

#### **Zoological Society of Manitoba**

Moated Pens and Shelter, for Carnivores,  
1963

#### **Royal Trust Company**

Animal Donation, Pandas, 1963

#### **Carling Breweries Manitoba Ltd.**

Animal Donation, Lions, 1964

#### **Bearing Supply & Service Ltd.**

Animal Donation, Gibbons, 1964

#### **The Airliner Motor Hotel**

Animal Donation, Ducks, 1964

#### **Trans Air Limited**

Animal Donation, Birds, 1964

#### **Federal Electric Corp. and Govt. of Canada**

Animal Donation, Polar Bear, 1965

#### **Zurich Zoo, Switzerland**

Animal Donation, Raccoonlike Dogs, 1965

#### **Mr. O. A. Olson, Nigeria**

Animal Donation, Grey Parrot, 1966

#### **Anonymous Donor**

Accommodation, for Wolverines, 1966

#### **Odeon-Morton Theatres**

Animal Donation, Lion cub, 1966

#### **Mrs. Peter Curry, Winnipeg**

Animal Donation, Hartmann's Mountain  
Zebras, 1966

#### **Wiley Ford Mercury Sales**

Animal and Cage Donation, Cougars, 1966

#### **Eaton's of Canada**

Animal Donation, Birds, 1966

#### **Dr. Robert E. Warriner**

Animal Donation, Deer and Monkeys, 1966

Many of the above gifts were channelled through the Zoological Society of Manitoba. Donations are accepted by our Zoological Society and thus become tax-deductible.